termissa, unicolor-friesei and the typical *unicolor*). The bumble-bees (*Bombus*) are absent from the Ethiopian region, though they are known to occur in tropical South America.

W. M. Wheeler

Quantitative Chemical Analysis, Adapted for use in the laboratories of colleges and schools. By Frank Clowes, D.Sc. (London) and J. Bernard Coleman, A.R.C.Sc. (Dublin). Eighth edition. Philadelphia, P. Blakiston's Son & Co. 1909. Pp. 565. $3.50.

This is a new edition of a well-known and very popular book. The first edition appeared in 1891, the seventh in 1905. This was reprinted in 1907 and again in 1908, and here is a new edition. What is the reason for this popularity? We find it on comparing this with other manuals, which are as a rule either general or special, those of the general type giving few special or technical methods, and those of the special type dealing with a single branch of analysis. In the present book the authors begin with very thorough instruction in general analysis and pass on to specialties, such as the analysis of gas, water, milk, butter, tanning materials, oils and fats, assaying, iron and steel, etc.

This comprehensive task is well done in this edition in 565 closely printed pages, by omitting matters theoretical, and thus gaining space. The directions for work are so clear and comprehensive that an isolated analyst should be able to overcome any difficulties with its help. For example, 10 pages are given to a thoroughly illustrated, very detailed but empirical treatment of the subject of the balance and weighing. Treadwell in his analytical chemistry gives also 10 pages to the subject, but half this space is given to mathematics and theory.

In brief the present volume will appeal less to the university-trained chemist, who has access to a library of books on analysis, than to the great number of analysts with only college or technical school training who need a well-written comprehensive book, which simply tells them what to do and how to do it.

Among the new methods described in the preface may be mentioned additional methods for the determination of melting and boiling points, for the electrolytic estimation of metals, for the volumetric estimation of hydrogen peroxide, formaldehyde, silver, tin and antimony in alloys and various new technical processes including the use of the bomb-calorimeter in coal valuation, and a new section on oils, fats and waxes to which Professor Lewkowitch has contributed.

E. Renouf

Elementary Chemistry. By Hollis Godfrey, Head of the Department of Science, Girls' High School of Practical Arts, Boston, Mass. Longmans, Green & Co. 1909. Pp. 456.

In the preface the author states that,

> Four ideals have governed the writing of this book. The author has desired to obtain simplicity; to reach the understanding of the student; to rouse the pupil to a realization that the science of daily life is identical with the science of the school room; to include all the essential facts and theories which could be rightly assimilated in one year's work in elementary chemistry. . . . No book which is a mere encyclopedia of facts arranged without reference to their teaching value can produce a maximum of effect. . . . It has been a constant purpose to bring forward wide-reaching general truths in the form in which they would most effectively impress the student.

In this book the author has followed a different path from the usual one and has produced a work which has much to commend it for the purpose for which it is evidently intended. Instead of confining himself to a rather detailed study of a few of the simple substances and preparing the way for a more advanced course, the author has had in mind the needs of those who will have no further opportunity to study this subject and has covered in a very general way the more important points in the fields of both inorganic and organic chemistry, emphasizing especially the application of this science to daily household life. Owing to the fact that this book would probably be used by students more advanced than those who would take an elementary

course as a preliminary to a more advanced one, the subjects can be treated in a more general and advanced form without, however, smothering the general principles in a multitude of details. One peculiar feature of this book which would probably attract the attention of a reader is the unusual method of introducing various subjects by what might be called a poetical reference to some action in the world at large as a basis to explain some chemical fact or hypothesis. While this appears, to the chemist who has been trained to reason on the basis of observed facts and to keep away as far as possible from unprofitable speculation, to be an unscientific method of treating the subject and one usually more suitable for primary grades, it may have its value, just as a study of models enables one to grasp more clearly the conception of stereochemistry and the configuration of molecules. On the whole, therefore, the reviewer considers that this book should be of value in introducing a class of girls to the part which chemistry plays in the affairs of the world surrounding them. J. L. G.

Die Normalen Asymmetrien des Menschlichen Körpers. By Professor Dr. E. GAUPP. Pp. i + 59, mit 8 Textfiguren. Jena, G. Fischer. 1909.

This little but useful volume forms a fourth part of a "Collection of Anatomical and Physiological Publications" written by Professors Gaupp and W. Nagel.

The present work is to a large extent a continuation of Professor Gaupp's former study concerning the right-handedness of man (No. I. of the same series of publications). It summarizes in a somewhat detailed manner the various observations recorded in anatomical and anthropological literature on such asymmetries of the different parts of the human body which are not due to disease, and at the same time it presents a thorough critical consideration of the many causes of these various inequalities.

A large part of the brochure is devoted to the asymmetries of the spine and to those of the limbs. The treatment of the inequalities in the different other parts of the osseous system is less comprehensive, and there is a lack of individual investigations by the author. Notwithstanding this the work will be very useful for reference to the student of the subject with which it deals, and will be further valuable by its large bibliography.

There could, perhaps, be found some fault with the term "normalen" in the title, for strictly speaking there are no *normal* asymmetries; but the author employed this term in want of something more expressive to denote that he is not dealing with the effects of pathological conditions. A. HRDLIČKA

SCIENTIFIC JOURNALS AND ARTICLES

The Journal of Biological Chemistry, Vol. VII., No. 4, issued March 25, contains the following: "The Purin Ferments of the Rat," by Alice Rohdé and Walter Jones. Investigation of extracts of the tissues of rats failed to demonstrate either adenase or xanthoöxidase. Rats' urine, however, contains uric acid. The origin of this uric acid must be attributed either to the action of purin ferments *in vivo* which do not exhibit themselves in organ extracts or to processes which do not involve the known purin ferments. For the latter explanation, much experimental proof exists. "On the Salts of Cytosine, Thymine and Uracil," by Victor C. Myers. A description of the preparation and some of the properties of the sodium, potassium, mercury and lead salts of thymine and uracil. "The Presence of Iodine in the Human Pituitary Gland," by H. Gideon Wells. Analysis of human pituitary glands taken from subjects who had not received iodides while in the hospital failed to show iodine in the gland: similar analyses of glands from subjects who had received iodides revealed iodine in the pituitary gland. Hence the normal presence of iodine in the gland is unproved. "A Note on the Physiological Behavior of Iminoallantoïn and Uroxanic Acid," by Tadasu Saiki. Elimination of purins in the urine is unaffected, excretion of oxalic acid is increased by the administration of either of the above-mentioned substances. "Nylander's Reaction